



Low-altitude outbreaks of human fascioliasis related with summer rainfall in Gilan province, Iran

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Abstract:

Following human fascioliasis outbreaks in 1988 and 1999 in Gilan province, northern Iran, efforts are now made to shed light on the seasonal pattern of fascioliasis transmission in this endemic area, taking into account snail host populations, climatic conditions and human cases. Populations of the intermediate host snail (*Lymnaea* spp.) peak in May and November, while there is a fourfold increase in the rate of human fascioliasis in February compared to that of September. Transmission is likely to occur mainly in late autumn and sporadically in late spring. Rainfall, seasonally analysed in periods of 3 years, indicates that accumulated summer rainfall may be related with the 1988 and 1999 human fascioliasis outbreaks. Although a more detailed picture, based on the analysis of further abiotic and biotic factors influencing fascioliasis transmission in this area, is required to substantiate this hypothesis, our results serve as the first step of a geographical information system project concerning the epidemiological study of fascioliasis in Iran. This local-scale study concerning the effects of climate change and natural disasters on the spread of fascioliasis aims to facilitate the understanding of what goes on at the regional scale in this respect.

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Resource Description

Early Warning System: ☒

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure : ☒

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Food/Water Quality

Extreme Weather Event: Flooding

Food/Water Quality: Pathogen

Geographic Feature: ☒

resource focuses on specific type of geography

Climate Change and Human Health Literature Portal

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: Other Asian Country

Other Asian Country: Iran

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease

Foodborne/Waterborne Disease: Fascioliasis

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content